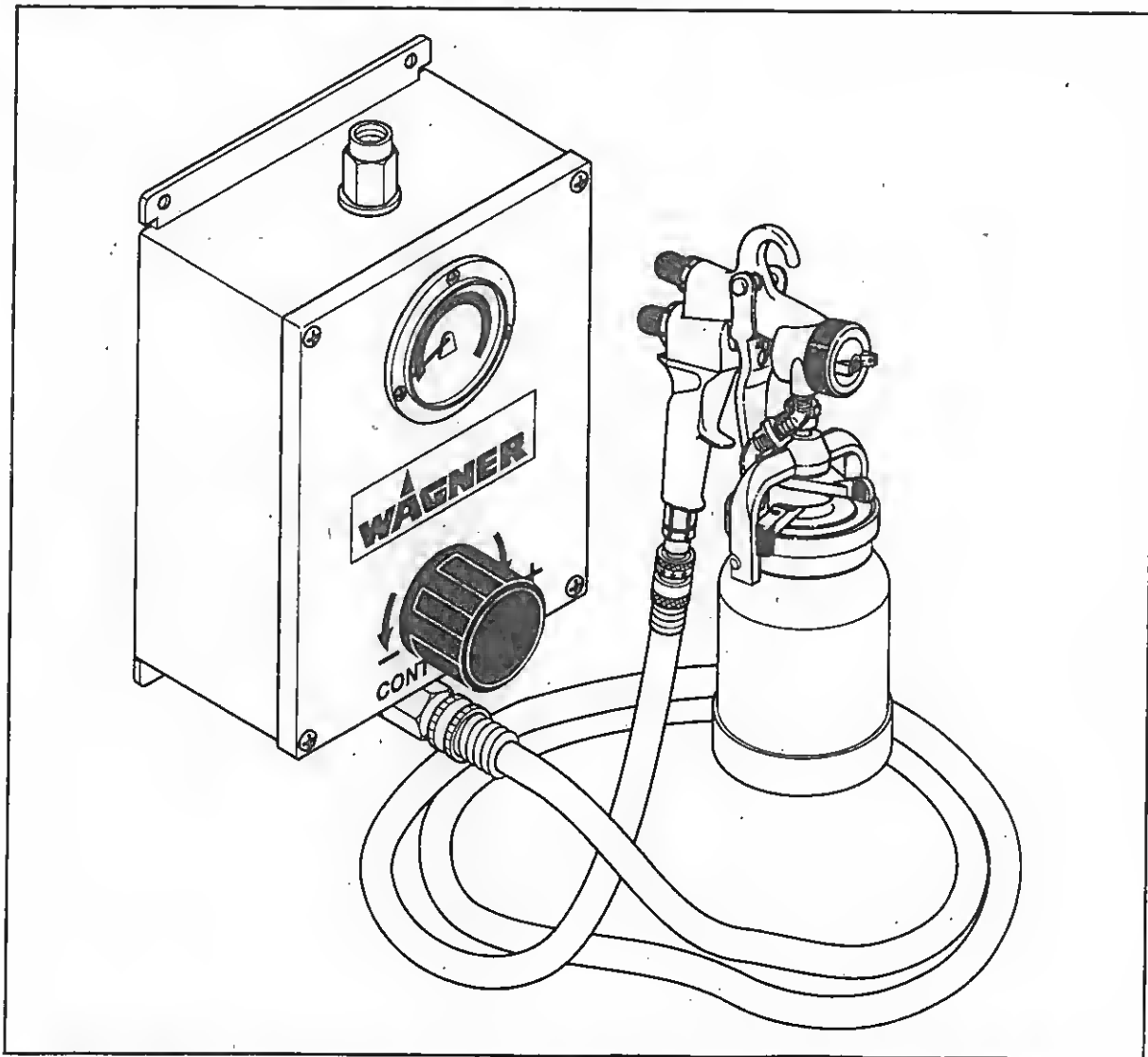


WAGNER

Operating Manual

S. 1, 10

FineCoat Controller Coating system



FineCoat spray gun with pressure regulator

Table of contents

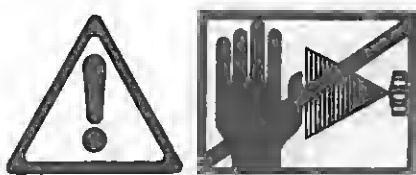
	Page
1. Safety regulations for FineCoat spraying.....	1
2. Applications.....	1
3. Technical data.....	1
4. Description of components.....	1
4.1 Function of the pressure controller.....	2
4.2 Function of the FineCoat spray gun.....	2
4.3 Safety devices.....	2
5. Setup.....	2
5.1 Pressure controller.....	2
5.2 Preparing the coating material.....	2
5.3 Table of viscosities and nozzle sets.....	2
5.4 FineCoat spray gun.....	2/3
6. Setting the FineCoat spray gun.....	3/4
Spray pattern selection.....	3
Setting the required spray pattern.....	3
Setting the spray jet width.....	3
Setting the amount of material.....	3
Setting the amount of air.....	3
Setting the ascending feed pipe.....	4
7. Spraying technique.....	4/5
8. Breaks in work.....	5
9. Finishing work and cleaning.....	5
10. Changing the nozzle.....	6
11. Spray gun accessories and spare parts.....	7
Nozzle sets.....	7
Table of nozzle sets.....	7
Valve plate set.....	7
Service set.....	7
12. Special accessories.....	7
RN 30 Extension tip.....	7
WF 20 Flocking gun.....	7
13. Troubleshooting chart for finish problems.....	8
14. Troubleshooting chart.....	9
15. Spare parts.....	10/11
15.1 Spare parts list, pressure regulator (controller).....	10
15.2 Spare parts list, air hose.....	10
15.3 Spare parts diagram, air hose.....	10
15.4 Spare parts list, FineCoat spray gun.....	10/11
15.5 Spare parts diagram, FineCoat spray gun.....	11
Sales and service companies.....	12
Important notes on product liability.....	13
CE Declaration of conformity.....	13
Guarantee declaration.....	13

1. Safety regulations for FineCoat spraying

All local regulations in force must be observed.

In order to ensure safe operation of the FineCoat systems the safety regulations listed below must be followed.

1. Read the operating manual carefully and follow the instructions given in order to avoid possible danger.
2. **Never operate near sources of ignition, e.g., open flames, cigarettes, cigars and pipes, sparks, red-hot wires, hot surfaces, etc.**
3. **Warning! Risk of Injury by Injection!**
Never point the spray gun at persons or animals



4. Always wear a protective mask when spraying. In order to avoid occupational illnesses, always follow the manufacturer's instructions for the materials, solvents and cleaning agents used when preparing and using such materials and when cleaning the unit. Protective clothing, gloves and, if necessary, skin protection cream should be used to protect the skin.
5. **For safety reasons, never use solvents based on 1,1,1 trichloroethane or methylene chloride.**
6. **When working indoors, a sufficient flow of air must be ensured for extracting the solvent vapors.**
7. Extraction systems should be installed on-site in accordance with local regulations.
8. The work-pieces to be sprayed must be earthed.
9. **For breaks in work always secure the spray gun against unintentional operation (see page 5, fig. 13).**
10. When cleaning the unit with solvents, never spray into a container with only a small opening (bunghole). Formation of an explosive gas/air mixture. The container must be earthed.

2. Applications

The "FineCoat Controller" coating system consists of a pressure controller which supplies compressed air to a Fine Coat spray gun with material cup via an air hose (the Fine Coat system is an advancement and improvement of the commonly used High Volume Low Pressure coating system).

The controller is attached to the wall near the workplace and is connected to the compressed air supply.

The Fine Coat system is suitable for the application of primers, lacquers, solvent-based paints and water-soluble paints.

The reduced overspray results in a very high transfer efficiency of 80%.

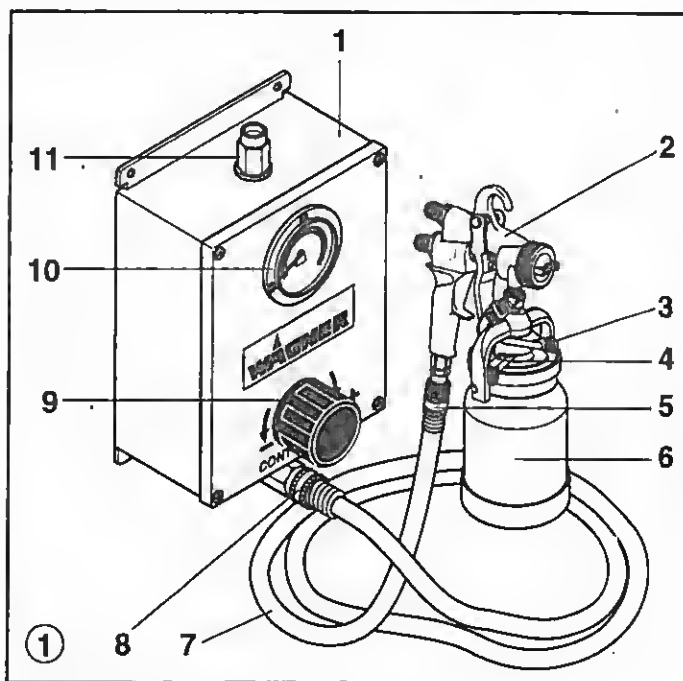
3. Technical data

Max. inlet pressure: 8 – 10 bar

Compressed air supply: min. 400 l/min

Sound level, max.: 83 dB (A)

4. Description of components



- 1 Pressure regulator (controller)
- 2 Fine Coat-spray gun
- 3 Closing lever for paint container
- 4 Rotating lever for ascending feed pipe
- 5 Quick coupling for spraygun
- 6 Paint container (1 litre)
- 7 Air hose (9m)
- 8 Hose connection with swivel
- 9 Air pressure control knob
- 10 Pressure gauge (0 - 2 bar)
- 11 Air inlet (BSP 1/2 in connection)

4.1 Function of the pressure controller

The compressed air for operating the Fine Coat spray gun is controlled by the pressure controller (adjustment from 0 to 1.4 bar) and is limited to max. 1.4 bar by a safety valve.

Press the air pressure control knob in to fix the set working pressure.

4.2 Function of the Fine Coat spray gun

In the Fine Coat spray gun, the controlled compressed air is divided into atomizing air and compressed air to the material cup (suspended cup).

Atomization of the material is achieved by combining high air volume with low working pressure.

This spray gun which is especially designed for Fine Coat technology enables controlled spraying with little over-spray.

Moreover, with the Fine Coat spray gun, the spray pattern can be adjusted from 6 mm round jet to 350 mm flat jet, depending on the selected nozzle set.

4.3 Safety devices

When connecting the air hose to the pressure controller without Fine Coat spray gun, a valve in the quick release coupling prevents the release of compressed air.

When the allowable pressure of 1.4 bar in the pressure controller is exceeded, a safety valve is automatically opened and air is released.

By turning back the compressed air control knob, which decreases the pressure to zero bar, the safety valve is closed.

5. Setup

5.1 Pressure controller

1. Attach the controller module securely to the wall near the spray booth.

(Note: delivered air hose 9 m)

2. Data for air pressure connection :
max. inlet pressure : 8 - 10 bar
Thread connection : BSP 1/2 in

Attention: before connecting the controller to the air source, turn the air control knob completely to the left !

3. Connect the air pressure supply.

Note: The air compressor should have a volume output of 400 Liters/Minute or higher for the system to operate properly.

4. Connect the air hose and the Fine Coat spray gun.

Pressure gauge chart

Colour	Display bar	Comment
Green	0 – 1	normal operation range
Yellow	1 – 1,4	max. recommended operation range
Red	1,4 – 2	not recommended for operation

5.2 Preparing the coating material

Observe the manufacturer's instructions for the use of the coating material on the paint tin or on the technical instruction sheet.

Coating material purity:

An absolute pre-condition for the trouble-free operation of the fine-spray system is that the **coating material is uncontaminated**. If you have doubts as to the purity of the coating material, we recommend that you first filter it through a fine sieve.

5.3 Table of viscosities and nozzle sets

Coating material	Viscosity DIN-s (4 mm DIN cup)	Nozzle set No.
Solvent-based lacquer paints	15 - 45	3 - 4
Water-soluble lacquer paints	observe manufacturer's instructions	4 - 5
Wood preservatives (scumble, mordants, etc.)	undiluted	2 - 3
Multi-color effect materials, multi-color paint	observe manufacturer's instructions	6 - 7
Texture and effect paints	observe manufacturer's instructions	5 - 6

5.4 FineCoat spray gun

1. Open closing lever on the paint container, remove paint container.
2. Fill paint container with coating material.
3. Check that the paint container seal is clean and is seated correctly.
4. Clip the container onto the spray gun and secure with the closing lever.
5. Pull out air pressure control knob on pressure regulator (controller) and set atomizer air.

Green	0 – 1 bar	normal operation range
Yellow	1 – 1,4 bar	max. recommended operation range
Red	1,4 – 2 bar	not recommended for operation

Press the air pressure control knob in to fix the set working pressure.

6. Point the paint spray gun at the object to be sprayed.
7. Determine the settings for the spray pattern, spray jet width, amount of material, amount of air and ascending feed pipe settings, see fig. 2 - 8 and the description page 3/4.
8. Operate trigger on the paint spray gun.

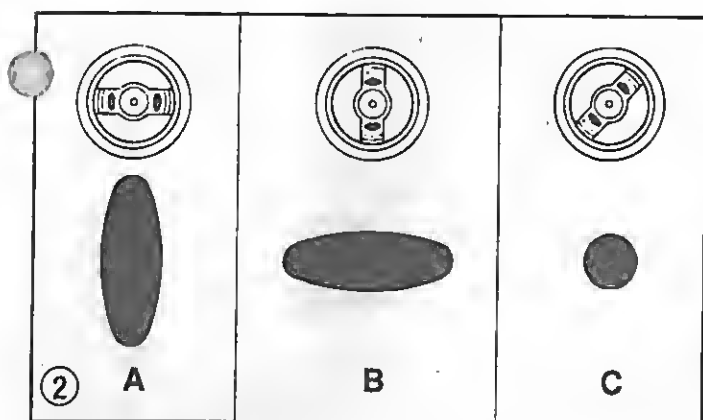
6. Setting the FineCoat spray gun

Spray pattern selection (fig. 2)

A = vertical flat jet for horizontal surfaces

B = horizontal flat jet for vertical surfaces

C = round jet for corners and edges and places difficult to access.

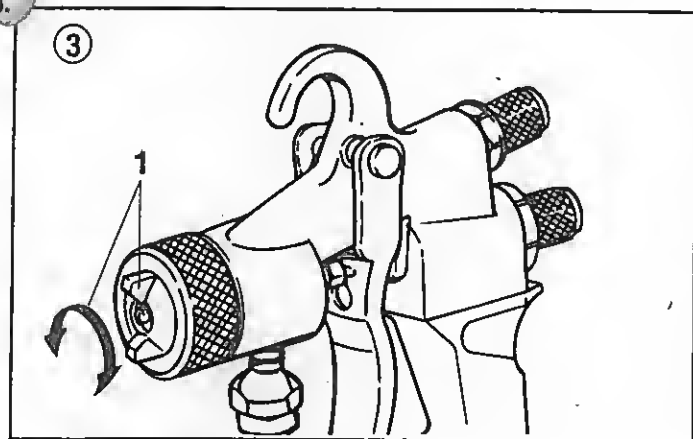


Setting the required spray pattern (fig. 3)

Turn the air cap (1) to the required spray pattern position.

Attention:

Never pull trigger while adjusting the air cap settings.



Setting the spray jet width (fig. 4)

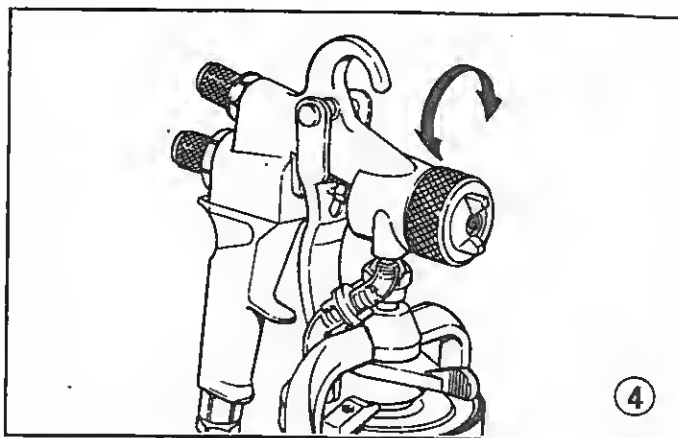
Adjusting ring

Turn to the right = wider spray jet

Turn to the left = narrower spray jet

Note:

The adjusting ring does not fasten the air cap!

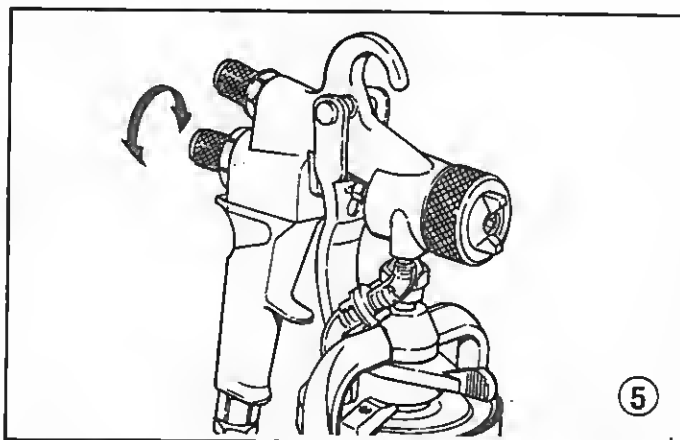


Setting the amount of material (fig. 5)

Set the amount of material by turning the material adjustment knob.

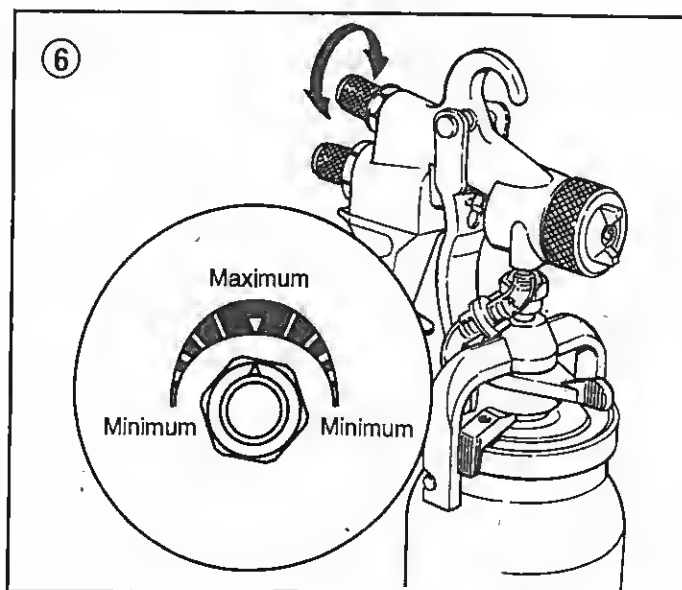
Turn to the left = more material

Turn to the right = less material



Setting the amount of air (fig. 6)

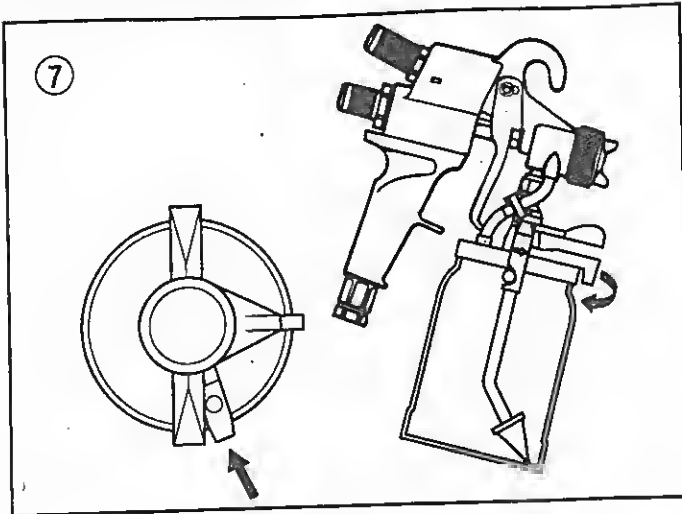
The correct setting for the amount of air is decisive for the atomization and formation of paint mist.



Setting the ascending feed pipe

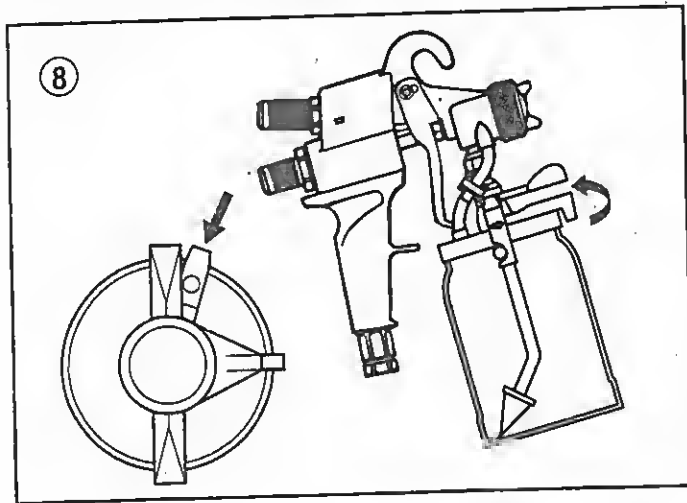
Spraying object lying on floor (fig. 7)

Turn rotating lever (2) clockwise as far as it will go.



Spraying object over head (fig. 8)

Turn rotating lever anti-clockwise as far as it will go.



7. Spraying technique

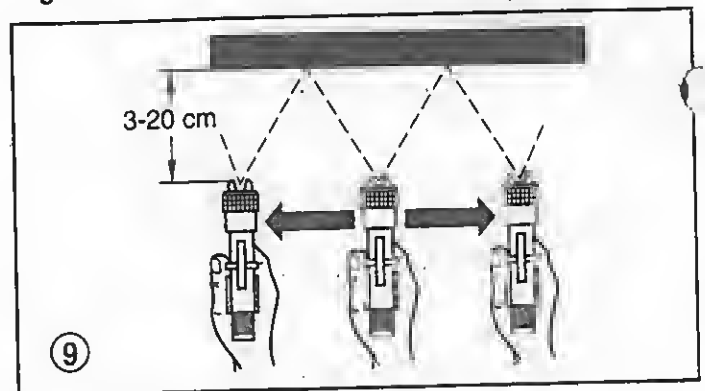
Hold the paint spray gun upright and maintain a constant distance to the object being sprayed. Move the paint spray gun evenly either from side to side or up and down. If the gun is moved evenly, it will produce an even surface finish. No runs will occur if the speed is correct.

Always start spraying away from the object and avoid stopping spraying whilst still on the object.

Note: If the round jet setting is used, the distance may be increased according to the size of the object being sprayed.

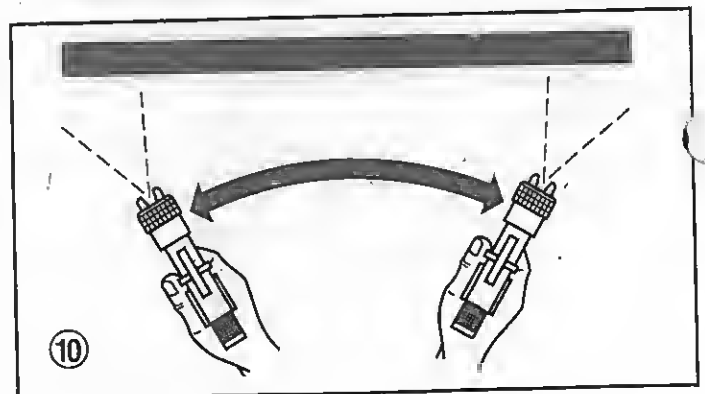
- In case of excessive paint mist formation, adjust the air and material flow respectively and alter the distance from the object.

Right



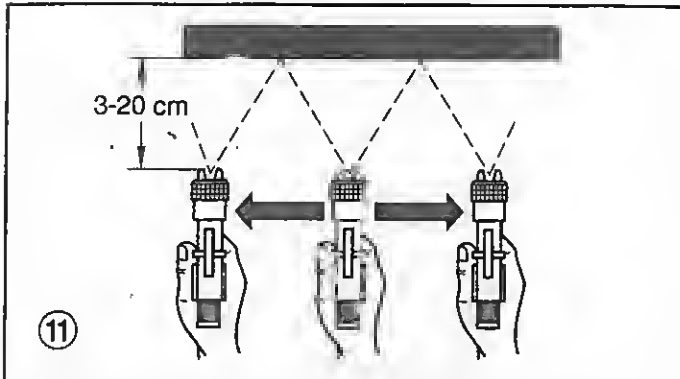
Wrong

- Excessive paint mist formation
- Uneven surface finish



Spraying technique when using textured and effect paints:

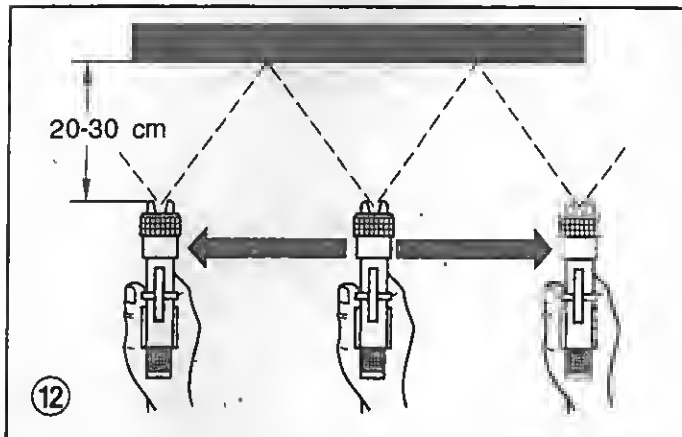
When spraying with a flat fan, the distance to the object should be between 3 and 20 cm.



Spraying technique when using color-effect or multi-color paints:

When spraying with a flat fan, the distance to the object should be between 20 and 30 cm.

Note: When selecting the round fan, the distance may be increased depending on the object.



3. Breaks in work

- Turn the material regulating knob to the right as far as it will go (fig 13). This will secure the paint spray gun against unintentional operation.



9. Finishing work and cleaning

1. Turn off compressed air supply.
2. Hold the paint spray gun in the original container. Press the trigger to release the pressure in the spray gun container.
3. Undo the paint container closing lever and remove the container.
4. Empty the remaining coating material into the original container.
5. Fill the spray gun container with solvent or water and fit onto the spray gun.
6. Shake the paint spray gun well.
7. Provide compressed air supply. Spray the solvent or water into an open container.

Caution!

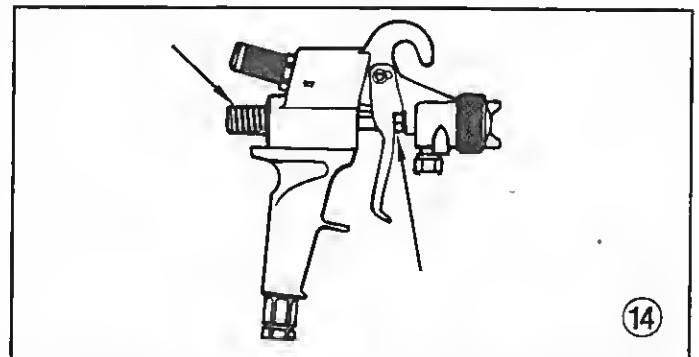
Never spray into a container with only a small opening (bunghole)! See safety regulations.

8. Repeat this procedure until the solvent or water coming out of the tip is clear. Then empty the paint container completely.

Caution! Never leave solvents in the spray gun container; this may cause pressure to build up in the container.

Always keep the paint container seal clean of left over coating material and check regularly for signs of damage.

9. Turn off compressed air supply.
10. Clean the outer surfaces of the paint container and paint spray gun with a cloth soaked in solvent or water.
Note: Do not leave the FineCoat spray gun immersed in solvent for extended periods! (The seals and air pipe on non-return valve may swell, preventing them from functioning properly.)
11. Unscrew adjusting ring, remove air cap and spring plate. Unscrew nozzle. Clean air cap, tip and needle with brush and solvent or water.
Note: Never use sharp metal objects to clean the nozzles or air channels of the FineCoat spray gun.
12. Apply a fine coat of silicone-free oil to the marked areas.

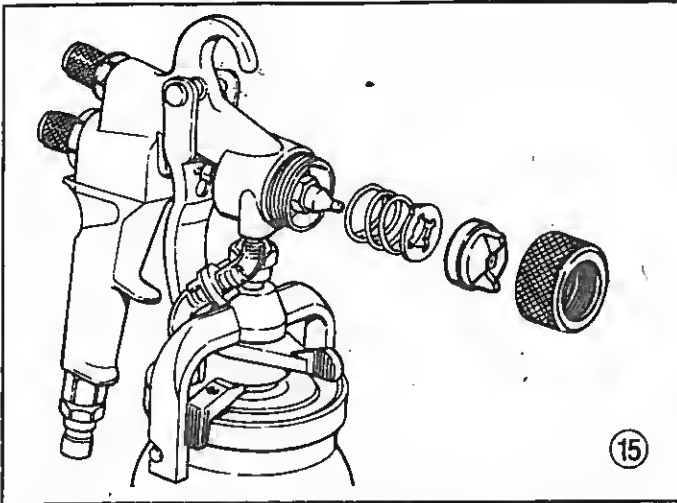


13. If the paint spray gun is not used for any length of time, it should be cleaned and protected by applying a fine coat of silicone-free oil.

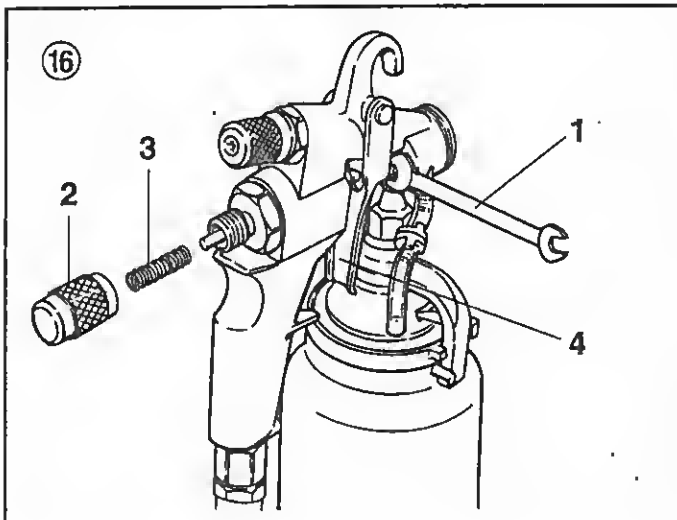
10. Changing the nozzle

Note: Make sure that the air cap, the tip and the needle have identical markings..

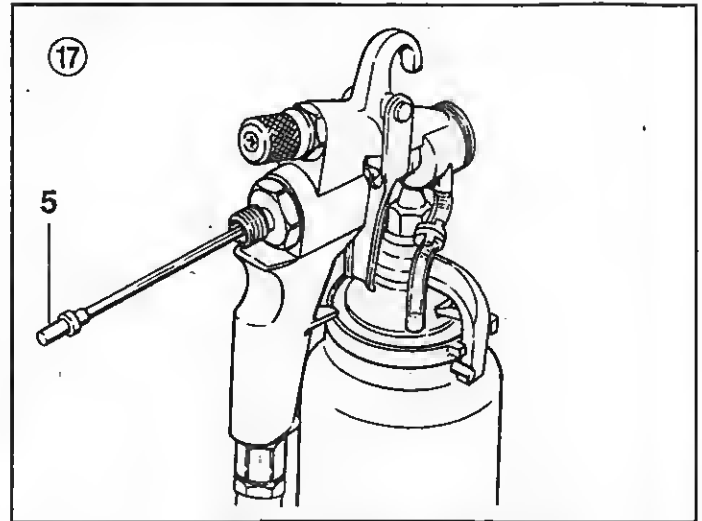
1. Remove the adjusting ring, the air cap and the spring plate (fig. 15).



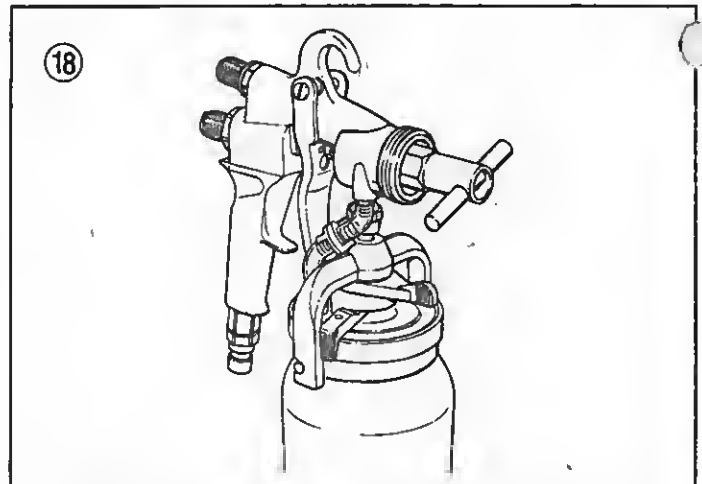
2. Fig. 16 – Loosen the needle seal with the open-end wrench (1). Remove the material adjusting knob (2) and the pressure spring (3). Open trigger of the spray gun to facilitate needle removal (4).



3. Remove the needle (5) (fig. 17).



4. Remove the tip with the enclosed special socket wrench (fig. 18).



Reassemble with the new nozzle set in reverse order.

Attention: The needle seal screw connection must be readjusted after reassembly.

11. Spray gun accessories and spare parts

Nozzle sets:

The spray nozzle set consists of an air cap, a tip and a needle (fig 19).

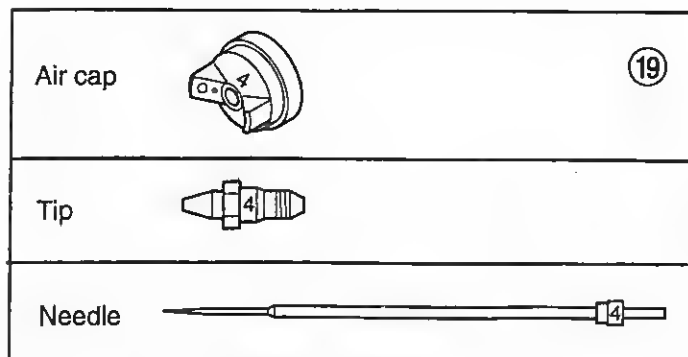


Table of nozzle sets

Marking	Set (complete) Part No.	Tip size
2	0276 254	Ø 0.8 mm
3	0276 227	Ø 1.3 mm
4	0276 228	Ø 1.8 mm (standard)
5	0276 229	Ø 2.2 mm
6	0261 021	Ø 3.0 mm
7	0261 022	Ø 4.0 mm

Valve plate set for non-return valve
10 pcs. Part No. 0277 919

Service set

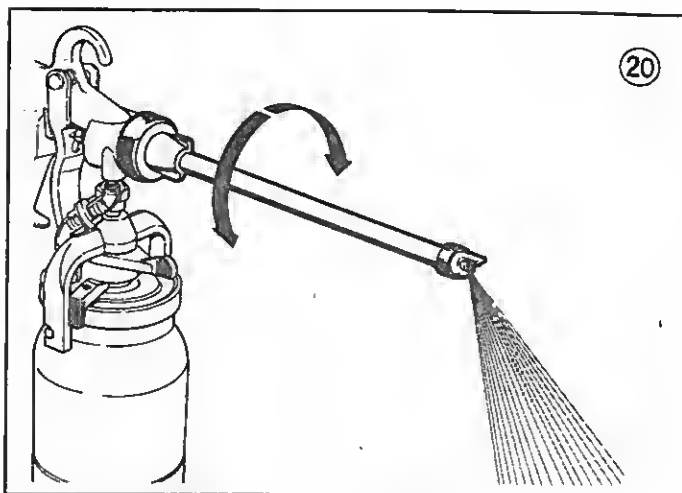
consisting of seal item 5, page 11, seal item 8, needle seal item 24, air pipe item 30, non-return valve item 33, air pipe item 34, paint container seal item 49.

Part No. 0277 943

12. Special accessories

RN 30 Extension tip for ribbed radiators,
length 30 cm.

Part No. 0261 020



WF 20 Flocking gun

for the application of dry chips

Part No. 0261 025



13. Troubleshooting chart for finish problems

Problem	Cause	Remedy
Orange peel	Paint drying too fast	Slower solvent or retarder
	Gun too far from surface	Move closer to target
	Viscosity of paint too high	Reduce viscosity
Runs and sags	Material too thin	Add material
	Movement of gun too slow	Speed up passes
	Too much material	Reduce material flow by turning in material adjustment knob
	Spray gun too close to workpiece	Move gun back from workpiece
Pinholing	Trapped solvents	Apply material in lighter coats
Fish eyes	Possible silicone contamination	Use solvent to clean all parts
Blistering	Moisture in/on spray surface	Thoroughly clean surface
	Incompatible top coats or undercoats	Make sure coatings are compatible

14. Troubleshooting chart

Problem	Cause	Solution
Little or no paint flow	Insufficient pressure	Increase pressure
	Material too thick	Thin with solvent
	Non-return valve (33) clogged, see page 11	Unscrew non-return valve and clean or exchange valve plate. Pay attention to the direction of the arrow during assembly.
	Paint container seal damaged	Replace
	Filter (48) clogged	Clean or replace
	Paint container empty	Refill
	Adjusting ring (29) open too far	Adjust
	Material adjusting knob (1) closed	Adjust
Tip drips	Worn tip	Replace
	Contamination in tip	Clean
	Material adjusting knob open too far	Adjust material adjusting knob accordingly (see page 3)
	Needle seal screw connection (18) over-tightened	Adjust
Spray pattern sickle-shaped	Air cap holes clogged	Clean
Spray jet flutters	Coating material in paint container is running out	Refill coating material
	Filter clogged	Clean or replace
Leaks around the needle (3)	Needle seal screw connection (18) loose	Tighten screw connection for needle seal (18) loosely with open-end wrench.
	Needle seal (24) worn	Tighten or replace the needle seal (24)
Too much overspray	Air pressure too high	Reduce air pressure
	Material too thin	Add unthinned paint
	Spray gun too far from target	Move closer
Air leaking from the Controller	Safety valve not seated	Turn pressure down to zero and then increase
Water in air lines	Condensation	Install volume moisture trap
System leaks pressure	Restriction in air line from compressor (existing regulator)	Remove restriction (regulator)
	Air compressor too small	Use larger compressor

15. Spare parts

15.1 Spare parts list, pressure regulator (controller)

Manometer

Dual axis hose swivel

Part No.

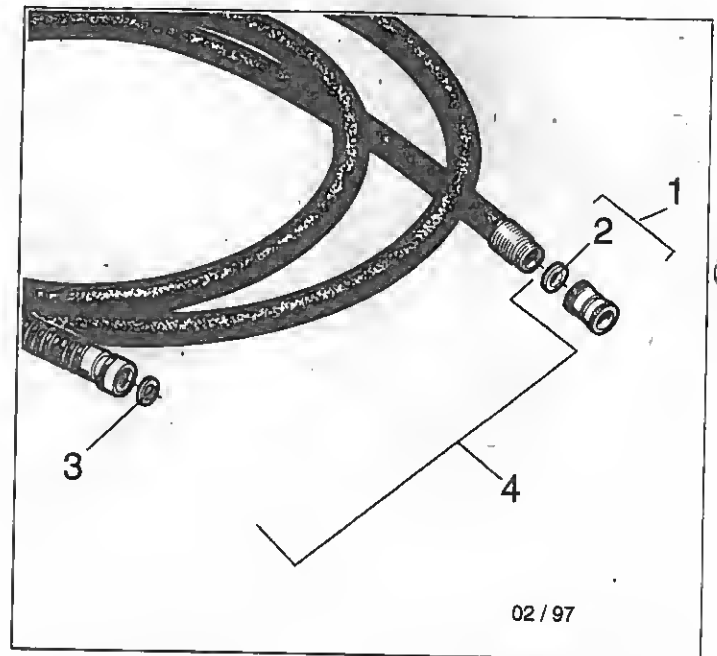
0261 247

1070 031

15.2 Spare parts list, air hose

Item	Part No.	Description
1	1070 032	Hose quick-release coupling
2	0276 439	Seal quick-release coupling
3	0277 413	O-ring
4	1030 011	Air hose 9 m

15.3 Spare parts diagram, air hose



15.4 Spare parts list, FineCoat spray gun (spare parts diagram, see page 11)

Item	Part No.	Description
	0279 094	FineCoat paint spray gun
1	0277 502	Material adjusting knob
2	0275 576	Needle spring 0295 575
3	0276 228	Nozzle set no. 4 (consists of air, cap, tip and needle)
4	0277 510	Housing
5	0275 501 *	Seal
6	0275 578	Pressure spring
7	0277 536	Tappet
8	0277 486 *	Seal
9	0277 489	Retaining ring
10	9811 119	Hexagon nut
11	9805 205	Screw
12	0277 491	Knob
13	9894 242	Spring washer
14	0277 498	Valve housing
15	0277 493	Valve

Item	Part No.	Description
16	0277 185	Housing
17	0277 515	Retaining ring
18	0277 508	Screw connection
19	0277 470	Handle
20	0277 481	Pipe
21	0277 480	Hexagon nut
22	0275 301	Nipple
23	0277 505	Nipple
24	0275 579 *	Needle seal
25	0277 198	Trigger
27	0277 514	Axle
28	0275 250	Spring plate
29	0277 507	Adjusting ring
30	0277 482 *	Air pipe
31	0277 919	Valve plate set – 10 pcs.
33	0276 248 *	Non-return valve
34	0277 483 *	Air pipe



MANUFACTURING AND SALES COMPANIES

D	CH	Japan	USA
J. Wagner GmbH Otto-Lilienthal Str. 18 88677 Markdorf Fed. Rep. of Germany	Wagner International AG. Industriestr. 22 9450 Altstätten Switzerland	Wagner Spraytech Japan / Ltd. 2-35, Shinden-Nishimachi Osaka / Japan	Wagner Spraytech Corp. P.O. Box 9362 Minneapolis / Minn. 55440 USA
Phone 07544 / 5050 Fax 07544 / 505-200	Phone 071 / 7 57 22 11 Fax 071 / 7 57 22 22	Phone 720 / 743561 Fax 720 / 743426	Phone 612 - 553 / 7000 Fax 612 - 553 / 7288

SALES AND SERVICE COMPANIES

A	J. Wagner GmbH Oberflächentechnik Lohnergasse 1 1210 Wien Austria Phone 0043/1/2707781-0 Fax 0043/1/2788430	E	Wagner Spraytech Iberica S.A. Apartado 132 08750 Molins de Rey Barcelona / Spain Phone 93/6800028 Fax 93/6680156	I	Wagner Colora Via Ciucani, 3 20060 Ornago (MI) Italy Phone 039 / 6010474 Fax 039 / 6010601
AUS	Wagner Spraytech Australia Pty. Ltd. POB 286 Mordialloc, 3195 Australia Phone 03/5872000 Fax 03/5809120	F	J. Wagner France S.A.R.L. B.P. 75 91122 Palaiseau-Cedex France Phone 01/60114050 Fax 01/69817257	NL	Wagner Spraytech (Nederland) BV Postbus 1656 3600 BR Maarssen Netherlands Phone 030 / 2414155 Fax 030 / 2411787
B	Wagner Spraytech Belgium SA Veilinglaan 58 1861 Meise-Wolvenstem Belgium Phone 02/2694675 Fax 02/2697845	GB	Wagner Spraytech (UK) Ltd. Unit 3 Haslemere Way Tramway Industrial Estate Banbury, Oxon OX 16 8TY Great Britain Phone 0295/268464 or 0295/268465 or 0295/268466 Fax 0295/269861	NZ	Wagner Spraytech (NZ) Ltd. P.O. Box 12629 Penrose, Auckland New Zealand Phone 09/641169 Fax 09/642790
DK	Wagner Spraytech Scandinavia A/S Kornmarksvej 26 2605 Brøndby Denmark Phone 43632811 Fax 43430528	HK	J. Wagner GmbH (HK) Room 1801 - 02 Tai Sang Comm. Bldg. 24 - 34 Hennessy Road Wanchai Hong Kong Phone 852 / 865 1802 Fax 852 / 529 1753	S	Wagner Sverige AB Muskötgatan 19 254 66 Helsingborg Sweden Phone 042/150020 Fax 042/150035

A list of international WAGNER distributors is available on request

Important notes on product liability

As a result of an EC regulation being effective as from January 1, 1990, the manufacturer shall only be liable for his product if all parts come from him or are released by him, and if the devices are properly mounted and operated.

If the user applies outside accessories and spare parts, the manufacturer's liability can fully or partially be inapplicable; in extreme cases usage of the entire device can be prohibited by the competent authorities (employer's liability insurance association and factory inspectorate division).

Only the usage of original WAGNER accessories and spare parts guarantees that all safety regulations are observed.

CE Declaration of conformity

Herewith we declare that the supplied version of

**WAGNER FineCoat Controller,
0275 002, 0275 118**

complies with the following provisions applying to it:
89/392 EEC.

Applied harmonized standards, in particular:
EN 292-1/-2

Applied national technical standards and specifications, in particular:

DIN 24 558, VBG 23

Date : 30. 11. 1994



Executive Officer



Signature

Executive Secretary

Guarantee declaration

12 months, single shift, 6 months for multiple shifts.

We guarantee this equipment on the following terms:

We will repair or replace, at our discretion, free of charge, all parts which, within 12 or 6 months from date of purchase, are found to be wholly or substantially unserviceable due to causes arising prior to the sale – in particular faulty design, materials or workmanship.

The guarantee does not extend to damage due to the following causes:

Unsuitable or improper usage, faulty assembly or putting into operation by the purchaser or a third party, normal wear, negligent handling or servicing, unsuitable spraying media, particularly corrosive and abrasive materials, use of substitute materials and the action of chemical, electro-chemical or electric agents not attributable to us. Abrasive spraying media, such as red lead, emulsions, slips and glazes, liquid abrasives and similar, reduce the life of valves, packings, gun and tip, as well as of pneumatic pump pistons. The resulting wear is not covered by the guarantee.

The equipment should be inspected immediately upon receipt. Any apparent defect should be notified in writing to the supplier or to our works within 14 days, otherwise all rights to redress are invalidated.

We reserve the right to entrust compliance with the guarantee to an approved subcontractor.

The granting of this guarantee requires proof of purchase by presentation of invoice or delivery note.

Where the inspection shows damage not falling within the terms of the guarantee, the repair will be carried out at the purchaser's expense.

J. WAGNER GmbH

Subject to modifications
Printed in Germany

